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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/696,907      | 10/30/2003  | Derek M. Dempsey     | CEO-012.02          | 9241             |

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EXAMINER

WACHSMAN, HAL D

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2857

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |                                |  |
|------------------------------|-------------------------------|--------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/696,907 | Applicant(s)<br>DEMPSEY ET AL. |  |
|                              | Examiner<br>Hal D Wachsmen    | Art Unit<br>2857               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,8-18,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 3-7,19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-26-04</u> . | 6) <input type="checkbox"/> Other: _____  |

1. The Preliminary Amendment filed 10-30-03 has a specification amendment for page 1 (adding a CLAIM OF PRIORITY), however this amendment while providing the page number where it is to be inserted does not provide the line number. In addition, the CLAIM OF PRIORITY does not provide the current status of 09/808,936 (i.e. is now U.S. patent no. 6,675,134). Appropriate correction is required.
2. The specification is objected to because there is no Brief Description of the Drawing section. Appropriate correction is required.
3. The Abstract is objected to because the Abstract contains legal phraseology (i.e. reads like a claim, "The includes steps of..." and "said measures.....said distribution function") and refers to the distribution function which is not being claimed in this continuation application. Appropriate correction is required.
4. There is legal phraseology in the specification (see page 5, lines 6 and 18, for example). Appropriate correction is required.
5. The Response To Notice To File Corrected Application Papers indicates the submittal of a substitute specification. However, this substitute specification is improper under 37 C.F.R. 1.125(b) because there is no statement that it contains no new matter, no marked-up copy of the substitute specification and this substitute specification does not contain the specification amendment referred to in paragraph 1 above. Appropriate correction is required.
6. Claims 1-22 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The preamble of claim 1 states "A method, comprising:" but a method for

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what exactly is being referred to here ? The last 2 lines of claim 1 cite "based on the measures of difference, generating a performance measure of the data classifier" which does not particularly point out how exactly the measures of difference are being used to generate the performance measure of the data classifier. This same type of problem also occurs in claim 11, lines 9-10, claim 17, lines 9-10. Claim 11, line 4, cites "a processor capable of:" however the use of the words "capable of:" implies that the invention may or may not do what is being claimed here. This same type of problem also occurs in the preambles of claims 12-15. Claim 13, line 2, cites "the categories" which lacks antecedent basis. The preamble of claim 17 cites "A processor program for operating a data classifier, the processor program disposed on a processor-readable medium and comprising instructions to cause a processor to:" however if the instructions here are not being executed on the processor it is not clear how the functionality of this processor program is being realized. The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claims 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 11 is a hybrid claim, that is a single claim which claims both an apparatus and the method steps of using the apparatus (see *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990)). The preamble of claim 11 first sets forth "A system for operating a data classifier..." followed by apparatus limitations "test data including..." and "a processor...". however, after that in the body of the claim are a series of method steps "receiving result output data elements...", "generating measures of difference ..", etc. for using the apparatus.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 11-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As already shown in paragraph 8 above, claim 11 is a hybrid claim and thus is directed toward neither a "process" nor a "machine", but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which was drafted so as to set forth the statutory classes of invention in the alternative only.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 2, 8-12, 15-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Field et al. (6,038,555).

As per claim 1, Field et al. (col. 5 lines 12-18) disclose “providing test input data elements and corresponding test output data elements” and “providing the test input data elements to a data classifier to generate result output data elements”. Field et al. (col. 5 lines 19-22, col. 7 lines 53-57, col. 9 lines 18-21, col. 10 lines 1-3) disclose “generating measures of difference ... and each corresponding result output data element”. Field et al. (col. 5 lines 38-46, col. 11 lines 2-16, col. 12 lines 40-49, col. 18 lines 18-36) disclose “based on the measures of difference, generating a performance measure of the data classifier”.

As per claim 2, Field et al. (col. 10 lines 25-33, col. 11 lines 6-16) disclose “providing categories associated with different values of measures of differences” and “associating the measures of difference with the categories based on the respective values of the measures of difference”.

As per claim 8, Field et al. (col. 5 lines 16, 17) disclose “training the data classifier” and Field et al. (col. 5 lines 25-32, col. 18 lines 29-36, col. 20 lines 64-67)

disclose "based on comparing the performance measure with a threshold, retraining the data classifier".

As per claim 9, Field et al. (see at least abstract) disclose the feature of this claim.

As per claim 10, Field et al. (see at least abstract) disclose the feature of this claim.

As per claim 11, Field et al. (Abstract, figures 1, 2, col. 5 lines 12-18) disclose "test data including test input data elements...test output data elements", and "a processor capable of: receiving result output data elements generated by the data classifier...test input data elements". Field et al. (col. 5 lines 19-22, col. 7 lines 53-57, col. 9 lines 18-21, col. 10 lines 1-3) disclose "generating measures of difference ...and each corresponding result output data element". Field et al. (col. 5 lines 38-46, col. 11 lines 2-16, col. 12 lines 40-49, col. 18 lines 18-36) disclose "based on the measures of difference, generating a performance measure of the data classifier".

As per claim 12, Field et al. (col. 10 lines 25-33, col. 11 lines 6-16) disclose the feature of this claim.

As per claim 15, Field et al. (col. 5 lines 16, 17) disclose "training the data classifier" and Field et al. (col. 5 lines 25-32, col. 18 lines 29-36, col. 20 lines 64-67) disclose "based on comparing the performance measure with a threshold, retraining the data classifier".

As per claim 16, Field et al. (see at least abstract) disclose the feature of this claim.

As per claim 17, Field et al. (col. 5 lines 12-18) disclose "receive test data input data elements...test output data elements" and "receive result output data elements...based on the test input data elements". Field et al. (col. 5 lines 19-22, col. 7 lines 53-57, col. 9 lines 18-21, col. 10 lines 1-3) disclose "generate measures of differences ...corresponding result output data element". Field et al. (col. 5 lines 38-46, col. 11 lines 2-16, col. 12 lines 40-49, col. 18 lines 18-36) disclose "based on the measures of difference...performance measure of the data classifier".

As per claim 18, Field et al. (col. 10 lines 25-33, col. 11 lines 6-16) disclose the feature of this claim.

As per claim 21, Field et al. (col. 5 lines 16, 17) disclose "train the data classifier" and Field et al. (col. 5 lines 25-32, col. 18 lines 29-36, col. 20 lines 64-67) disclose "based on comparing the performance measure with a threshold, retrain the data classifier".

As per claim 22, Field et al. (see at least abstract) disclose the feature of this claim.

13. Claims 3-7, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and subject to the appropriate correction of the 37 C.F.R. 1.75(a) objections noted in paragraph 6 above.

14. The following references are cited as being art of general interest: Hobson et al. (6,067,535) which disclose monitoring and retraining a neural network, Fischthal (5,822,741) which disclose a neural network/conceptual clustering fraud detection


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architecture and "A self-organizing map for clustering probabilistic models" (Hollmen et al.) which disclose techniques for detecting fraud in a mobile communications network.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Hal D Wachsman  
Primary Examiner  
Art Unit 2857

HW  
July 10, 2004